

**IN THE CLAIMS:**

1-68. (Cancelled)

69. (new) A method for loading of program data for a graphical user interface for operation or for diagnosis of a printer or copier, comprising the  
5 steps of:

transferring first data stored in a first storage region of a control unit of a printer or copier from the control unit to an operating unit with aid of a browser program module executed by the operating unit of the printer or copier, the first data containing at least specifications about at least one  
10 program module necessary for generation of operating or diagnosis functions;

with help of the operating unit, checking whether program data that contain the necessary program module are contained in an archive cache of the operating unit in which program data can be stored and read out independent of network address;

15 given non-existent program data with the necessary program module in the archive cache, transferring the program data from a further storage region of the control unit to the operating unit and storing the data in the archive cache; and

20 executing instructions of the necessary program module by the operating unit.

70. (new) A method according to claim 69 wherein the operating unit and a service and maintenance computer are connected with the same control unit via respectively one data connection.

71. (new) A method according to claim 69 wherein the program  
25 data stored in the archive cache are not automatically deleted, dependent on settings in the browser program module.

72. (new) A method according to claim 69 wherein program data of a plurality of program modules are contained in the archive cache of the operating unit, which program data are loaded and executed independent of a network address of the control unit by the operating unit.

5           73. (new) A method according to claim 69 wherein a version state of the program module stored as program data in the archive cache is compared with a version state of the necessary program module before transfer of the program data or before loading of the program data.

10           74. (new) A method according to claim 69 wherein the archive cache comprises a storage region of a fixed disc storage or of an exchangeable data medium.

75. (new) A method according to claim 69 wherein the first data contain at least a printer type or an output state of the printer or copier.

15           76. (new) A method according to claim 69 wherein a plurality of program modules are stored in the archive cache, a program module being selected with aid of the first data.

20           77. (new) A method according to claim 69 wherein the first data contain a program module with whose execution further first data and second data are loaded, whereby the first data contain a program module for communication control between the control unit and the operating unit, and a program module for provision of operating or diagnosis functions, the first data being contained in at least one file.

78. (new) A method according to claim 77 wherein the first data or program data contain a Java applet or an ActiveX program element.

25           79. (new) A method according to claim 69 wherein the control unit is connected with a service and maintenance computer over a remote data transfer connection.

80. (new) A method according to claim 79 wherein the remote data transfer connection comprises a point-to-point connection.

81. (new) A method according to claim 69 wherein the first data or the program data contain a primary loader program, printer-specific information, program modules for an RMI communication, program modules for implementation of an authentication, program modules for generation of a graphical user interface, program modules for access to a databank of the printer or copier, program modules for diagnosis of a paper input unit, a paper path controller, a paper output unit or a printing unit, and program modules for access to an event registration or program modules for access to an error storage.

82. (new) A method according to claim 69 wherein the first data or the program data contain Java applications that are transferred with aid of a Java Web Start technology to the operating unit and executed by this.

83. (new) A method according to claim 69 wherein the program data contain program elements for adjustment of parameters, counter values, counter limit values, voltage levels to be set, status information as well as program elements for implementation of light barrier routines, motor test routines and valve routines.

84. (new) A method for loading of program data for a graphical user interface for operation or for diagnosis of a printer or copier, comprising the steps of:

transferring first data stored in a first storage region of a control unit of the printer or copier from the control unit to a service and maintenance computer with aid of a browser program module executed by the service and maintenance computer connected with the printer or copier over a data connection, the first data containing at least specifications about at least one program module necessary for generation of operating or diagnosis functions;

with help of the service and maintenance computer, checking whether program data that contain the necessary program module are contained in a storage region of the service and maintenance computer;

5 given non-existent program data with the necessary program module in the storage region of the service and maintenance computer, transferring the program data from a further storage region of the control unit to the service and maintenance computer and storing the data in the storage region of the service and maintenance computer;

10 executing instructions of the necessary program module by the service and maintenance computer; and

with aid of the service and maintenance computer, in addition to diagnosis functions and modifications of setting values and parameters, enabling same operator control actions to an operating personnel as are possible with aid of an operating unit connected with the control unit.

15 85. (new) A method according to claim 84 wherein the program data stored in the storage region of the service and maintenance computer are not automatically deleted, dependent on settings in the browser program module.

20 86. (new) A method according to claim 84 wherein program data of a plurality of program modules are contained in the storage region of the service and maintenance computer, which program data are loaded and executed independent of a network address of the control unit by the service and maintenance computer.

25 87. (new) A method according to claim 84 wherein a version state of the program module stored as program data in the archive cache is compared with a version state of the necessary program module before transfer of the program data or before loading of the program data.

88. (new) A method according to claim 84 wherein the storage region of the service and maintenance computer comprises a storage region of a fixed disc storage or of an exchangeable data medium.

5 89. (new) A method according to claim 84 wherein a plurality of program modules are stored in the storage region and maintenance computer, a program module being selected with aid of the first data.

10 90. (new) A method according to claim 84 wherein the first data contain a program module with whose execution further first data and second data are loaded, whereby the first data contain a program module for communication control between the control unit and the service and maintenance computer, and a program module for provision of operating or diagnosis functions, the first data being contained in at least one file.

91. (new) A system for operation or for diagnosis of a printer or copier with aid of a graphical user interface, comprising:

15 an operating unit that is connectible with a control unit of the printer or copier via a data line;

the operating unit executing a browser program module with whose help first data stored in a first storage region of the control unit is transferable from the control unit to the operating unit, the first data containing at least  
20 specifications about at least one program module necessary for generation of operating or diagnosis functions;

the operating unit checking whether program data that contain the necessary program module are contained in an archive cache of the operating unit, in which program data can be stored and read out independent of  
25 network address, the program data stored in the archive cache not being automatically deleted independent of the settings in the browser program module;

given non-existent program data with the necessary program module in the archive cache, the program data being transferable from a further storage region of the control unit to the operating unit and storable in the archive cache; and

- 5           the operating unit executing instructions of the necessary program module.

92. (new)   A system for operation or for diagnosis of a printer or copier with aid of a graphical user interface, comprising:

- 10           a service and maintenance computer that is connectible with a control unit of the printer or copier over a data line;

- 15           the service and maintenance computer executing a browser program module with whose help first data stored in a first storage region of the control unit is transferable from the control unit to the service and maintenance computer, the first data containing at least specifications about at least one program module necessary for generation of operating or diagnosis functions;

            the service and maintenance computer checking whether program data that contain the necessary program module are contained in a storage region of the service and maintenance computer;

- 20           given non-existent program data with the necessary program module in the storage region of the service and maintenance computer, the program data being transferable from a further storage region of the control unit to the service and maintenance computer and storable in the storage region of the service and maintenance computer;

- 25           the operating unit executing instructions of the necessary program module; and

            the service and maintenance computer, in addition to enabling an operating personnel to work with diagnosis functions and modifications of setting values and parameters, enables the operating personnel same

operator control actions as are possible with aid of an operating unit connected with the control unit.

93. (new) A method for generation of a graphical user interface for a printing or copying system, comprising the steps of:

5 storing first data of a graphical user interface in a storage region of a first data processing unit of the printing or copying system;

transferring the first data to a second data processing unit for operation of the printer or copier connected via a data line with the first data processing unit;

10 processing the first data by the second data processing unit;

with the second data processing unit executing a display program module that processes the first data;

storing second data transferred to the second data processing unit in a second storage region of the first data processing unit;

15 transferring at least the second data with aid of a Remote Method Invocation communication;

transferring instructions of a Simple Network Management Protocol with aid of the Remote Method Invocation communication; and

20 processing the second data by the second data processing unit, at least one operating function or diagnosis function being provided for operation or for diagnosis of the printing or copying system.

94. (new) A method according to claim 93 wherein the first data processing unit comprises an operating unit or a service and maintenance computer.

95. (new) A method according to claim 93 wherein the first data contain at least page description information for generation of the graphical user interface.

5 96. (new) A method according to claim 93 wherein the first data contain graphic elements for generation of the graphical user interface.

97. (new) A method according to claim 93 wherein the first data have been generated with aid of a Hypertext Markup Language or with aid of the programming language Java.

10 98. (new) A method according to claim 93 wherein the display program module comprises a browser program module for display of a graphical user interface with aid of data contained in hypertexts or of data contained in program data for generation of a graphical user interface.

15 99. (new) A method according to claim 93 wherein program elements contained in the second data are stored in archives, the program elements comprising class data, Java applets, or ActiveX program elements processed by the display program module, functions of the graphical user interface being realized for operation, for configuration, or for diagnosis of the printing or copying system.

20 100. (new) A method according to claim 93 wherein the data connection between the first data processing unit and the second data processing unit comprises a network connection.

101. (new) A method according to claim 100 wherein the network connection occurs with aid of a Local Network Connection.

25 102. (new) A method according to claim 93 wherein the operating unit comprises a service and maintenance computer for diagnosis, maintenance and parameter adjustment of the printing or copying system.

103. (new) A method according to claim 93 wherein the first data or the second data are transferred from the first data processing unit to the



second data processing unit with aid of a hypertext transfer protocol, and the first or second storage region is associated with an HTTP server of the first data processing unit, and that the second data are transferred from the first data processing unit to the second data processing unit in an operator control  
 5 action for invocation of the operating, configuration or diagnosis function.

104. (new) A method according to claim 93 wherein the display program contains a Java runtime program environment.

105. (new) A method according to claim 93 wherein third data are transferred from the first data processing unit to the second data processing  
 10 unit.

106. (new) A method according to claim 105 wherein the third data are transferred with the aid of a file transfer protocol.

107. (new) A method according to claim 105 wherein the third data contain error data and diagnosis programs.

15 108. (new) A method according to claim 93 wherein the second data processing unit is connected with the first data processing unit via a wide area network.

109. (new) A method according to claim 93 wherein before the transfer of the first or second data, it is checked whether the second data  
 20 processing unit is authorized to receive or to send the data, and authenticity of the second data processing unit is checked by the first or second data processing unit with aid of an authentication procedure.

110. (new) A system for generation of a graphical user interface for a printing or copying system, comprising:

25 a first data processing unit of the printing or copying system that contains a first storage region in which are stored first data for generation of a graphical user interface;

the first data being transferable to a second data processing unit for operating the printer or copier, the second data processing unit being connected with the first data processing unit via a data line;

5 the second data processing unit processing the first data with aid of a display program module;

second data that contain program elements and that are transferred to the second data processing unit over the data line with aid of a Remote Method Invocation communication being stored in a second storage region of the first data processing unit;

10 instructions of the Simple Network Management Protocol being transferred with the aid of the Remote Method Invocation communication; and

the second data processing unit processing the second data and providing at least one operating or diagnosis function for operation or for diagnosis of the printing or copying system.